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Sheet 1 of 5

Complete if Known

Application Number	10/676,970
Filing Date	09/30/2003
First Named Inventor	Rakesh Agrawal
Art Unit	2171
Examiner Name	Undetermined
Attorney Docket Number	ARC920030033US1

U. S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

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Examiner Signature	/Paul Sommerfeld/	Date Considered	05/11/2006
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PTO/SB/08B (08-03)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Complete if Known			
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		Filing Date	09/30/2003		
		First Named Inventor	Rakesh Agrawal		
		Art Unit	2171		
		Examiner Name	Undetermined		
Sheet	2	of	5	Attorney Docket Number	ARC920030033US1

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
PS		R. AGRAWAL et al. Athena: Mining-based Interactive...Proc. of the Seventh Int'l Conference on Extending Database Technology (EDBT), Konstanz, Germany, March 2000.	
PS		A. BLUM et al. Combining labeled and unlabeled data with co-training. In COLT: Proceedings of the Workshop on Computational Learning Theory, Morgan Kaufmann Pubs, 1998.	
PS		A. BRODER et al. Information retrieval on the web: Tools and algorithmic issues. In Foundations of Computer Science, Invited Tutorial, 1998.	
PS		C. J. C. BURGESS. A tutorial on support vector machines for pattern recognition. Data Mining and Knowledge of Discovery, 2(2): 121-167, 1998.	
PS		S. CHAKRABARTI. Data mining for hypertext: A tutorial survey. SIGKDD Explorations, 1, 2000.	
PS		S. CHAKRABARTI et al. Enhanced hypertext categorization using hyperlinks. In Proc. of the ACM SIGMOD Int'l Conference on Management of Data, Seattle, WA, May 1998.	
PS		R. COLLBERT et al. SVM Torch: Support vector machines for large-scale regression problems. Journal of Machine Learning Research, 1:143-160, 2001.	
PS		P. DOMINGOS et al. Mining the network value of customers. In 7th Int'l Conf. on Knowledge Discovery in Databases and Data Mining, pages 57-66, San Francisco, CA, Aug. 2001.	
PS		T. FAWCETT et al. Adaptive fraud detection. Data Mining and Knowledge Discovery, 1(3):291-316, 1997.	
PS		N. FRIEDMAN et al. Learning probabilistic relational models. In IJCAI, pages 1300-1309, 1999.	

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		Application Number	10/676,970
		Filing Date	09/30/2003
		First Named Inventor	Rakesh Agrawal
		Art Unit	2171
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PS		M.X. GOEMANS et al. .878-approx. algorithms for MAX CUT and MAX 2SAT. In Proc. of the Twenty-Sixth..Theory of Computing, pp 422-431, Montreal, Quebec, Canada, 23-25 May 1994.	
PS		I. GOOD. The Estimation of Probabilities: An Essay on Modern Bayesian Methods. M.I.T. Press, 1965.	
PS		T. JOACHIMS. Transductive...vector machines. In I. Bratko and S. Dzeroski, editors, Proceedings of ICML-99, 16th Int. Conf. on Mach. Learning, pp 200-209, Bled, SL, 1999.	
PS		H.KARLOFF. How good is the Goemans-Williamson MAX CUT algorithm? In Proc. of the Twenty-Eighth Annual ACM Symp...Theory of Comp., pp 427-434, Philadelphia, PA, 22-24, May 1996	
PS		R.M. KARP. Reducibility among combinatorial problems. In R.E. miller and J.W. Thatcher, editors, Complexity of Computer Computations, pp 85-103. Plenum Press, New York, 1975	
PS		G. KARYPIS et al. A fast and high quality...scheme for partitioning irregular graphs. Technical Report TR 95-035, Univer. of Minnesota, Dept. of Computer Science, 1995.	
PS		H. KAUTZ et al. Referralweb: Combining social networks and collaborative filtering. Communications of the ACM, 40(3):63-65, 1997.	
PS		B. W. KERNIGHAN et al. An efficient heuristic procedure for partitioning graphs. The Bell System Technical Journal, pages 291-307, 1970.	
PS		S. MILGRAM. The small world problem. Psychology Today, 2:60-67, 1967.	
PS		T. MITCHELL. The role of unlabeled data in supervised learning. In Proceedings of the Sixth International Colloquium on Cognitive Science, San Sebastian, Sapin, 1999.	

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PS		T. M. MITCHELL. Machine Learning. McGraw-Hill, 1997.	
PS		J. NEVILLE et al. Iterative classification in relational data. In Proc. AAAI-2000 Workshop on Learning Statistical Models from Relational Data. AAAI Press, 2000.	
PS		NIGAM et al. Learning...unlabeled documents. In Proc. of AAAI-98, 15th Conf. of the Am. Assoc. for Artificial Intel., pp.792-799, Madison, US, 1998. AAAI Press, Menlo Park, US.	
PS		PANG et al. Thumbs up? Sentiment classification...learning techniques. In Proc. of the 2002 Conf. on Empirical Methods in Natural Lang. Processing (EMNLP), pp.79-86, 2002.	
PS		G. SALTON. Automatic Text Processing: The Transformation, Analysis, and Retrieval of Information by Computer. Addison-Wesley, New York, 1989.	
PS		M. F. SCHWARTZ et al. Discovering shared interests using graph analysis. Communications of the ACM, 36(8):78-89, 1993.	
PS		D. SPIELMAN et al. Spectral partitioning works: Planar graphs and finite element meshes. In 37th Annual Symposium on Foundations of Computer Science, 1996.	
PS		P. TURNEY. Thumbs up or thumbs down? Semantic...classification of reviews. In Proceedings of the 40th Annual Mtg. of the Asso. for Comp. Ling. (ACL 2002), July 2002.	
PS		V.N. VAPNIK. The nature of statistical learning theory. Springer Verlag, Heidelberg, DE, 1995.	
PS		G. K. ZIPF. Human Behavior and the Principle of Least Effort. Addison-Wesley, 1949.	

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STATEMENT BY APPLICANT**

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First Named Inventor	Rakesh Agrawal
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Sheet

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PS		M. A. SMITH et al. Visualization components for persistent conversations. Proceedings of the SIGCHI Conf. on Human factors in comp. systems, March 2001 pp. 136-143.	
PS		I. V. CADEZ et al. Probabilistic modeling...prediction. Proceedings of th seventh ACM SIKKDD Int'l Conf. on Knowledge Discovery and Data Mining, Aug. 2001 pp. 37-46.	
PS		T. MAH et al. Funnel report mining for the MSN Network. Proceedings of the seventh ACM SIGKDD Int'l Conf. on Knowledge Discovery and the data mining, Aug. 2001, pp. 450-455.	

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